

THE  
REFORMED  
SCHOOL. IV

BY  
JOHN DORT.



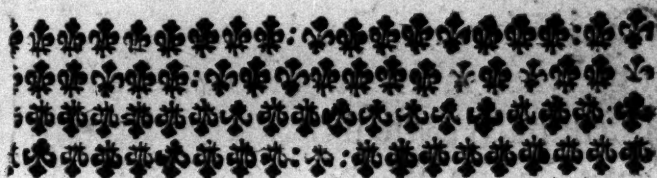
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## The Publisher to the Reader.

*Christian Reader,*

**N**othing from without hath supported my Spirit in the course of life, wherein God hath led me hitherto (*through manifold private difficulties and publick desertions,*) but the usefulness thereof towards the Publick. & whiles the graciousness of Providence hath from time to time succoured me, chiefly then when I was sinking under my Burdens; I have been taught from within, to look up to God alone in well-doing, till he bring his Salvation out of *Sion*: for, to propagate this Salvation of his with my poor talents, and to stirre up others to contribute their help thereunto, is the utmost aim

which I have in the Agency for Learning; wherein the goodnes of the Parliament hath owned me. And although towards the businesse it self, nothing hath been further done then to name for it; (*which for the time hath made my burdens somewhat heavier* yet because my genius doth leaden this way; and I hope still in God that he will not leave me without encouragements: therefore I am not weary in well-doing, so long as I have opportunity. Having then, upon a motion made by some, made my self Instrumentall to draw forth from others these following Directions, towards the Reforming of Schools, and the Advancement of Piety and Learning therein; I thought it expedient to acquaint thee with them, Christian Reader; that if thou dost think thy self any way concerned either in furthering the benefits of such a way of Education towards others; or in partaking ther

thereof for thine own, thou mayest be-  
think thy self how to do that which is  
fitting and conscionable; that such an  
Endeavour as this may be set forward  
towards the Publick Good. For mine  
own part, I shall confesse freely, that  
amongst all the Objects whereunto I  
have dedicated my thoughts and pains  
(whereof the extent is as large as ever-  
ry Good and Rationall Work in the  
whole life of Christianity) there is not  
any one which doth lie nearer my heart  
then this of the Education of Children  
in the way of Christianity. For, all  
things being rightly weighed, we shall  
perceive that this Endeavour alone, or  
nothing, will be able to work a Refor-  
mation in this our Age. For whiles  
the Magistracy and Ministry is made  
an Object of violent Contradictions,  
and thereby almost wholly put out of  
frame and made uselesse, as to the  
Reforming of Vices in Church and  
Commonwealth; it cannot be expect-

ed, although they be never so knowing  
and willing, that in the execution of  
their places, they should be able to  
bring matters to perfection. There-  
fore, to meddle directly with the mul-  
titudes of Aged people (the Objects  
of their charges) who are now settled  
and habituated in the way of their  
own choosing, and to think to draw  
them from it, is to attempt, *without*  
*discretion*, an impossibilitie. For it is  
not possible, that the extraordinary  
strains and distempers, whereinto we  
are fallen in these times, can be reform-  
ed without some extraordinary abilitie,  
either of outward Authority and  
Power to restrain exemplary disorder-  
linesse; or of inward Conviction, to  
leade men captive under the yoke of  
Christ, which are things <sup>un-  
der</sup> decayed, now adayes, amongst the pro-  
fessions of men. Seeing then, the cor-  
ruptions of those that are of age, are  
too strong and sturdy to be conquered  
by

by ordinary and weak means, and none extraordinary or strong enough, are apparent ; it followeth, that there is none other way left, but to deal with the young ones, before any corrupt habits, and perverse engagements be confirmed upon them; that they may be trained up from their Infancy, to a course of Reformation, both of Virtue and Learning. But because the training up of Schollars in one School or two, though very great and most exactly Reformed, will be but an inconsiderable matter, in respect of a whole Nation, and have no great influence upon the youth thereof, where so many Schools remain unreformed, & propagate corruptions ; therefore the propagation of reformed Schools is mainly aimed at ; and to that effect, the training up of Reformed School-Masters, is one of the Chief parts of this Designe. Now to endeavour to make out this, that the readiest way to Re-



form both Church and Common-wealth, is to reform the Schools of Education therein; and that the way to Reform these, is to send forth Reformed School-Masters amongst them, is, as I suppose, altogether superfluous: For it cannot be thought, that any rationall man should be such a stranger unto the affairs of humane Societies, as not to see, that from the ordinary Schools, all Magistrates, and Ministers, and Officers of State are taken throughout the Nations of the World, to be set over others; and that the impressions both of vice and virtue, which they have receiued in the Schools, are exercised, and become effectuell, for good or evil, afterward, in their places towards the Church and Common-wealth: so that the Schools are to be looked upon, as the Ordinary and Naturall fountains of a Settlement, as of our Corruption, so of our Reformation; if God will blesse us  
with

with any. And the School-Master in a well ordered Common-wealth, is no lesse considerable then either the Minister or the Magistrate; because neither the one nor the other will prosper or subsist long without him. I shall not need to adde any thing further concerning this subject, to make thee sensible, either of the Usefulnessse of the undertaking, or of the Scope of my negotiation in it.

*This onely I would have thee further to observe, judicious and truly Christian Reader ( for none but such can see any thing in this businesse ) that the Authour of this new Model of schooling was intreated to put it to paper, upon a serious motion made to him, and to some Friends of his, by others; for the entertaining and regulating of a Christian Association, whereof all the Members might be serviceable to each other, and to the Publick: therefore he speaks not in his own name alone concerning*

cerning the Association, but in the name of those, who were jointly called upon to give their assent thereunto, who agreed with him in these Proposals. The Motion is not as yet come to maturitie in the Resolution of those that first made it, and the cause is of some Conveniences to effect it, and the fears of unsettlement, after that it shall be set upon: and till there be a further ground laid for the prosecuting of this Designe; it is needlesse to give the Directory concerning the Education of Girls. In the mean time, I have thought good to publish this, with an addition of some directions for teaching of Logick; that such as can judge, may see that there is an easier and readier way to attain the perfection of Virtue and Happinesse, known and practicable, then as yet hath been published to the World, or put in practice by any; and that to set these wheels agoing, nothing is wanting, but a quiet place of abode,  
and

*and some assurance of necessary Protection.*

Let thy prayer go along with it, to supply these wants, if thou hast any Rationall or Spirituall apprehension of the good sought thereby unto all: and if thou canst, 'say with the Prophet Psal. 14. v. 7. *O that the salvation of Israel were come out of Sion: when the Lord bringeth back the Captivitie of his people, Jacob shall rejoyce, and Israel shall be glad.* To the expectation and accomplishment of this hope and promise, I leave thee, in him who is *the God of our Salvation, and the confidence of all the ends of the earth, and of them that are as farre off upon the Sea,* Psal. 65 .ver. 5. in whom I rest,

*Thy most willing Servant, for the  
advancement of Piety and  
Learning,*

*Samuel Hartlib.*







THE  
REFORMED  
SCHOOL.

*Concerning an Association for the Education of Children.*

**U**PON the motion which is made of entring into a Societie, wherein a certain number of Children, Boyes & Girls, should be educated unto Religion, to Morall Sciences & Virtues; we shall return this Answer.

1. That we hope never to bee found unwilling to contribute that which we can, towards the Advancement of Godliness in any Body or Societie; or towards the Reformation of Vices, which bring the judgments of God upon this Babylonian Generation wherein we live.
2. That we conceive the wayes of Christian Associations amongst those that are of ripe

riper years; and the Rules of Christian education amongst those that are not yet come to years of discretion, to be most conducive unto these ends: therefore as we shall bee willing to become serviceable, and concur with such as entertain these thoughts; so wee shall desire to see the hand of Providence leading, and opening a door for action to us.

3. And that we may be able to discover whether yea or no, how far, what way, and with whom this Aim should be prosecuted; we shall offer (to those that make the Motion to us, and to all others whose inclinations may bend this way) these following points to be taken into consideration: that if upon the Proposall thereof, any just Engagement doth follow; we may see God before us in the prosecution of this Enterprise.

### *First of the Association.*

1. The Association should be only of free Persons: therefore we shall not consent to joyn with any (specially with women) but such as are free to dispose of themselves this way, either by their owne right, as being under no Parents or Tutors to whom they are accountable of their actions: or by the full consent of freinds that may pretend to have some right to oversee them, and controll their proceedings.

2. Those

2. Those that associat should not come together to live an easie life without all cares; but their whole aime should be, to advance the life of Christianity in themselves and others, with all diligence.

3. The way of entrance into the Societie, of staying in it, and of going out of it, should be free: only at the coming in, and going out, the expresse motives should be declared for which the Association is taken up, or left off; that all things may be done openly and to edification, *as it becometh the Children of light.*

4. The form of the Societie should consist in the cohabitation of those that are associated in one house, for the joint exercise of daily worshipping of God, for the furtherance of profitable employments by mutuall concurrence, for the comfort of Table-communion, and for mutuall assistance in necessary consultations.

As concerning the place of cohabitation, it may easily be found when the number and names are known, of those that will associate.

The daily worshipping of God should be performed in Prayers, Meditations, and Conferences about the word of God: whereof, the exercises ought to bee regulated in Privat and Public, jointly & severally, according to the capacity and free willing inclinations of those that shall engage to entertaine the same.

The

## *Reformed*

For the furtherance of profitable employments  
there should be partly for the improvement of Ra-  
tionality, Discretion and Prudency, to ma-  
nage Rightly the affaires wherein every one by  
his calling is bound to do service unto others;  
Partly for the improvement of handy-works  
and tradings proper to either sex, which may  
become a relief to the poore; according to the  
proportion which every one shall be willing to  
enlarge himself in.

For the enioyment of Table-Societie; there  
should be a certain rate set down for dyet and  
other things; and a Steward appointed who  
should have the care of providing all things  
according to the rates appointed; who should  
give in his accounts weekly and monethly of  
all his disbursments.

The mutuall assistance to be given in neces-  
sary consultations should respect three things:  
First, the matters of spirituall concernment  
in common; Secondly, the matters of com-  
mon outward concernment; and Thirdly, the  
matters of particular concernment whether  
Spirituall or Bodily.

Concerning all matters of common con-  
cernment, whether spirituall or outward; there  
should be of course some set times appointed  
wherein, first, the spirituall state of the Socie-  
tie, and then the outward affaires, should be  
taken into consideration.

As

As for the spirituall state; matters of common edification are to be minded therein, as the fruit of that watchfulness which Christians ought to have over each other in the common profession of the name of Christ.

As for the outward affaires; all orders tending to regulate the same should be settled by mutuall and free consent: concerning which, this fundamentall Rule is to be observed: that, nothing is to be counted a matter of common concernment, but that wherein every one doth knowingly and judiciously professe himself to be concerned freely and willingly.

Concerning matters of particular concernment; any time should be free for those that stand in need of Councell, to call the rest of their Associates, either all or some, to give them assistance therein.

If these Generall Rules be first assented unto by those who are willing to engage in such a way; the particulars may be afterward set downe to be ratified by common consent, concerning the exercises of daily worshipping, meditation and conferences how to advance true Christianity in each other thereby, and concerning the course of their daily employments in other things.

Secondly



*Secondly of the Education of Children.*

The Girles should all be lodged in the same house with the associated women; to be under the perpetuall inspection of the Governess, by whom, their severall tasks for all the dayes of the week and houres of the day, should be set unto them; and the tymes of taking an account of them concerning every thing, ordered and strictly observed.

The Boyes should be in a severall house, or part of the house so, that they should not be able at any time to have free communication with the Girles; but should be alwayes under the inspection of their Tutors who should be men belonging to the association, for such Offices which women are not fit to be employed in: and these Tutors and Teachers should all be under one generall Overseer, who should give them their tasks, and see the same performed according to settled Orders.

The main scope of the whole work of Education, both in the Boyes and Girls, should be none other but this; to train them up to know God in Christ, that they may walke worthy of him in the Gospell; and become profitable instruments of the Common-wealth in their Generations. And in order to this, two things are to bee taught them. First, the

way of Godliness, wherein every day they are to be exercised, by prayers, reading of the word, Catechetical Institutions, and other exercises subordinat unto the life of Christianity. Secondly, the way of Serviceableness towards the Society wherein they live, that they may be enabled each in their sex respectively, to follow lawfull callings for profitable uses; and not become a burden to their generation by living in Idleness and disorderlinefle, as most commonly those do which come from the Schools of this age.

The Rule then according to which their education is to be Reformed fundamentally, is this.

That no time of the day is to be lost without some teaching exercise; and that nothing is to bee taught but that which is usefull in it self to the Society of mankind, therein fitting them for employments approvable by the Gospel; and which will bring them to behave themselves so as it becometh those who are called to walke with the lamb upon mount Zion in the presence of God, that is, as Saints in his Church.

Upon this ground, all the matters of shew and appearance, which please the fancies of men in the world, whether they be in points of knowledge or practice; (wherin all the time of the youth is most commonly spent in ordinary

ordinary Schools) are to be laid aside in the course of this Education.

Therefore as to the Girls, the ordinary vanity and curiosity of their dressing of hair and putting on of apparell; the customes and principles of wantonness and bold behaviour which in their dancings are taught them; and whatsoever else doth tend onely to fomet pride and satisfie curiosity and imaginary delights shall be changed, by this our course of Education, into plain, decent cleanliness and healthfull wayes of apparrelling themselves; and into such exercises of their hearts, heads and hands, which may habituat them through the fere of God, to become good and careful housewives, loving towards their husbands and their children when God shall call them to be married; and understanding in all things belonging to the care of a Family, according to the Characters which Salomon doth give of a virtuous Godly woman. And such as may be found capable of Tongues and Sciences (to perfect them in Graces and the knowledge of Christ for all is to be referred to him above the ordinary sort) are not to be neglected; but assisted towards the improvement of their intellectuall abilities.

As for the Boyes, the same Rule is to be observed in the way of their Education, both for Tongues, Sciences and Employments.

the

at all the preposterous Methods of teaching the same; by which, not only their time is lost, but their spirits and affections are inclined to evill customes of Disorderliness, of Vanity, Pride and Self conceitedness, which is the root of all our contentions about matters of Learning and Science falsely so called; and all the unprofitable exercises of their mind and body in things which take them off from the aime of Christianity unto the customes of the world shall be altered into profitable employments which may fit them to be good Commonwealths men, by the knowledge of all things which are fundamentall for the settlement of a State in Husbandry, in necessary Trades, in Navigation, in Civill Offices for the Administration of Justice; in Peace and War; and in Oeconomical Duties by which they may be serviceable to their own families, and to their neighbours.

And if these Generall Grounds be assented unto by those that have a mind to assist, and to help forward the Education of youth at a beginning of some Reall Reformation in that age; the particular Models both for Boyes and Girls Institution, Inspection and Employments may be soon added, and offered to their consideration.

## THE DIRECTORY

*For the Particular Education of Boyes.*

**I**F we suppose that fifty or threescore Boyes are to be educated, according to the Principles heretofore mentioned; we conceive the care which is to be taken of them should be ordered after this manner.

1. Let there be one Governour over them and three Ushers under him.

2. Let these Ushers do all things by the Governours Direction, which he shall after previous Consultation with them, give: that they may the better understand their work and go about it with cheerfulness.

3. And that these may without distraction be able to attend their work; Let them be provided with all outward things necessary for lodging, food, and raiment, without the cost or care, by the Diligence of him that shall be Steward of the Association.

4. Let the Governour and Ushers observe the settled Rights and Duties of their several places, and the Determined Rules of education towards the Children.



*The Rights and Duties of the Governour, and Ushers places.*

**A**S it is the Governours Duty to instruct and Overseethe Ushers in all things which concerne the Children ; so it shall not be lawfull for Ushers to alter any thing in the Orders which the Governour shall settle, without his knowledge and approbation.

2. The Governour shall have power, as to provide and place, so to displace the Ushers so he shall see cause : which cause, it will be fit for him to make known to any of the Association, who shall desire to be informed thereof.

3. The Governour shall give all his Directions in writing to the ushers.

4. Every Usher shall have a peculiar number of Schollars committed to his inspection whose lodgings shall be together, all next unto the Chamber, that in the night-season as well by day, he may oversee them.

5. The Ushers shall see their peculiar Schollars rise and go to bed, at the houres appointed : and when their Schollars are retired or come to bed ; they shall come to the Governour every evening before they go to bed themselves; that they may conferre about their matters together.

6. The

6. The Governour shall either by himself or some other see both the ushers and their scholars in their severall quarters at the set hours before he goeth to bed himself : and the Steward shall see the other servants retired and all the doores shut at the hour appointed, and shall bring such keyes to the Governour as he shall ordain to be brought unto him.

*The Rules of Education.*

The Chief Rule of the whole Work is, that nothing may be made tedious and grievous to the Children ; but all the toilsomeness of this business the Governour and Ushers are to take upon themselves ; that by diligence and industry, all things may be so prepared, methodized and ordered for their apprehension, that their work may unto them be as a delightful recreation by the variety and easiness thereof.

The things to be lookt unto in the care of their education, are 1. Their Advancement in Piety. 2. The Preservation of their Health. 3. The Forming of their Manners. 4. The Proficiency in Learning.

*Concerning their Advancement in Piety.*

That they may be advanced in Piety ; this shall be exercised every day, 1. in Prayers.

in Reading the Scriptures. 3. in Catechet-  
icall conferences. 4. And on the Lords day  
in the duties of solemne worship.

Their daily Prayers, reading of Scriptures,  
and conferences, shall go together in this  
order.

In the evening when the time of retiring is  
come, every Usher shall see his Scholars in  
their Chamber (for if they could be all that  
belong to each Usher made to sleep in one  
large Chamber like a gallerye, two and two  
in a bed; the way of overseeing, and uniting  
them in their exercises would be most commo-  
dious:) and when they are going to uncloth  
themselves, one of their number shall be taken  
in his turn according to a List, to go before  
the rest in a short prayer or the Usher himself  
shall do it before they begin to put off their  
clothes; each of them kneeling at the beds-side  
where he is to sleep: and the prayer being  
ended he whose turn it is shall read unto them  
some part of the Holy Scriptures, while they  
uncloth themselves; and pray in two or three  
words for a blessing upon their rest. He  
whose turn it is to do this duty, shall sleep  
that night with the Usher to whose care he is  
committed; and in the Morning shall rise with  
him half an hour before the rest; to waken  
his fellow-Scholars (at the hour appointed)  
cause them rise, which whiles they are a  
doing

doing ; and putting on their clothes , and combing their heads ; he shall againe with a previous short ejaculation , reade some part of the Scripture unto them ; and with a short prayer ( every one of the rest kneeling or standing by the bed where he slept ) thank God for his preservation over them in the night past , and crave his direction , blessing and protection for the day following. This is to be done within the space of half an hour , to be measured by a Sand-glasse : after which time , every one shall go abroad for the space of another half hour to stretch , wash , and cleanse himself : till , by the ringing of a Bell the whole family be called together : at this meeting , the Women and Girls shall be in one roome by themselves , and the Men and Boyes in another , so that they shall not see one another , and yet both be able to hear him , who shall be appointed to go before them all in the family-duty. He shall be some man of the Association in his daily or weekly turn , as they shall appoint it , who shall with a short prayer crave a blessing upon the meeting , and read a parcell of the Holy Scriptures , and conclude the Reading with a short prayer : all which shall not exceed the space of half an hour : and the next half hour following shall be spent in Catechetick exercises and conferences according to the order which

which the Governour shall settle in that manner differently towards the different Ages and degrees of proficiency in the younger and more aged Scholars. As for the members of the Association ; their conferences shall not be limited within such a time , but may be extended at pleasure : only the way how they ought to be ordered , that all may profit thereby , and confusion may be avoided ; is to be determined by the Governour, with their approbation.

At Dinner and Supper-time (which shall not exceed half an houre) one of the Children shall in his turn daily crave a blessing, in the name of all , upon their food : and read a part of the Scripture unto them while they are at table ; and when they have done, they shall jointly sing a stave or two of a Psalm with thanksgiving.

After supper , before they go to their chambers , they shall meet all againe in their severall roomes each sex by themselves , to pray in prayer , and in reading the word, as in the morning they did , for the space of half an houre : and another half hour afterward shall be spent in Conferences ; wherein the Children shall be encouraged , and accustomed to propose Questions to their Teachers , or to one another concerning matters of doubt which may have been incident unto their thoughts, either from the reading of Scripture or some,



other thing observed in the day-time : which being done , they shall all retire unto their severall quarters, and prepare to go to bed.

This Course of daily exercise in Piety is to be continued without interruption , no body is to be exempted from it, but only in case of sickness.

On the Lords day , over and above the daily sacrifice within doores to be observed the Children shall be brought forth unto the public meetings , to joyn with the Congregation of others in the worship of God ; and in the intervalles of times between the public meetings , and the last Sermon and supper time ; Conferences shall be entertained with them , concerning the things which they have heard.

And if those of the Association should entertain any Propheticall exercises among themselves, or with others, from without; then some of the most advanced Schollars should be admitted to be present with them.

This Care of advancing Piety and keeping the Lords day , is to be made the Chief of things belonging to their Education.

*Concerning the Preservation of their Health*

The next Principall Care is concerning the Preservation of their Health , wherein this

things belonging 1. to their Diet. 2. their sleeping. 3. to their bodily exercises 4. and to their Cleanlinesse are to be rightly ordered, and overseen; that the Orders may be observed.

*Concerning their Diet.*

Their Diet shall be appointed for every day of the week what it shall be, and when it shall be given them.

Their Breakfast, at 8 of the clock in the morning, of Bread and Butter or some other thing. they may be at it for the space of half an hour.

Their Dinner of good healthfull plain food. Competency is to be upon the table for them precisely at 12 of the Clock.

Their Supper of some food of light and easie digestion is to be upon the table precisely half an hour past six of the clock, and before seven, taken away.

Bread and beer of good quality shall not be refused to any that shall desire it, in case of not being satisfied with the ordinary allowance.

In case of Sicknes there should be a peculiar room appointed for them, and some to attend them, with such a Diet as shall be prescribed, and to entertain them with such thoughts and conversation, as shall be fitting for their disposition of mind.

*Concerning their Sleep and Rest.*

In Winter, the Aged Scholars shall be wakened at five ; in Sommer, at four of the Clock in the Morning : the younger, in Sommer at five ; in Winter, at six in the Morning and they shall all be in bed before, or at nine of the Clock at night. The Governours, Usher and Steward, if they be in health, should not go to bed till Ten.

*Concerning their Bodily Exercises.*

They shall exercise and stir their Bodies in the morning-season before dinner from nine till twelve a clock, and before supper they shall again exercise themselves in Sommer, from half an hour past five, till half an hour past six, and in winter, from five till six, and from half an hour past twelve after dinner, till half an hour past one, it shall be free for them, to do privat businesses, in their Chambers or else where.

The particular wayes of Exercising the Bodies shall not be left at random, but considered to some advantage of the Association and of their own experience in matters either of Husbandry, or Manufactures, or of Military Employments.

*Concerning their Cleanliness.*

They must be taught Cleanliness without Curiosity ; and made in love with it , as it is usefull for Health ; in which respect the Care of it must be recommended to them , and observed in them. 1. in their Feeding, that through Carefullness they eat or drink nothing that is unwholesome. 2. in their Body , head hands feet and clothing ; that they keep themselves from uncleanness of sweat , from vermine and other uncleanness. 3. in their Chamber , that they defile it not with stench , or suffer it to be unclean ; but that they keep it clean and sweet with refreshment of aire.

*Concerning the Forming of their Manners.*

Godliness and Bodily Health are absolutely necessary ; the one for spirituall , and the other for their temporall Felicitie : Next unto these two , to make up and perfect the state of their Happiness ; Care must be taken of their Manners. by which word I understand their outward life, aswell in respect of the Actions which they do , as in respect of their Carriage and behaviour in performing the same : that those may be Just and Honest ; this , Civil and unblameable. For , good

Manners, in this sense, are farre to be preferred unto all Humane Learning of what kind soever; because without Morall Honesty all the perfection of Learning is nothing else but an Instrument of wickedness to increase and aggravate the miseries of Mankind: whereas without Learning this alone with Bodily health is a sufficient ground to partake of temporall Felicitie.

And because in the ordinary Schools the Care is wholly neglected and the youth left to habituate it self to its Corrupt inclinations, while their wits are sharpened and exercised in all the subtilties of Humane Arts and Sciences; therefore Satan doth fortifie his strong holds by these within them, to make them impregnable: and their Spirits (as we find by dolefull experience in these times) are heightened to that degree of unconsciencebleness in Deceit, Mischief and Malice, that nothing in former Ages can be compared therunto. which should make us so much the more carefull to rectifie this evill in our Scholars, by how much it is neglected in others, and destructive to all.

The way then to Reforme our Scholars in this matter, and the Care to be taken of this should have two parts. The one should relate unto the Inward Principles of Morallitie, to work the true Impressions thereof upon the



spirits. The other should relate unto their Outward behaviour and carriage towards their Neighbour, to make it decent and without offence. and the first of these cannot be rightly taken up without the last, because without the observation of their unseemly behaviour and offensive Carriages; a discovery can not be made of the diseases of their soules, that the Remedies of wholesome Instructions, Admonitions and Corrections may be applyed therunto. This then is the Master-peece of the whole Art of education, to watch over the Childrens behaviour in their actions of all sorts, so as their true inclinations may be discovered; that the inward causes of their vicious disposition and distempers being found out; the true and proper Remedies thereof may be applyed unto them. And this is to be the subject whereof the Governour and Ushers are to have daily Conference every night: that upon the particular discoveries of the severall inclinations of their Scholars by the qualities of their unruliness; they may judiciously determine what to do with them, and how to proceed towards them, to reforme that which is amisse. where we conceive this studie should containe these endeavours.

First, to discern the proper Character of every Childs humour by his behaviour; to

discover the predominant qualitie thereof, and what is good, and what is evill in it.

Secondly, to contemplate rationally the inward disposition and frame of his spirit; to find out the Principles, by which he is led, and from whence that humour and behaviour doth arise; and the Impressions of virtue whereof he may be made capable.

Thirdly, to determine the way how to deal with him; that is, not only how to correct his outward visible misbehaviours; and to encourage him in that which is good and decent: but how to make him sensible, and rationally apprehensive of the true grounds both of the correction, and encouragement.

Here againe I conceive their studie may runne in these Channels.

First, what peculiar Restraint to lay upon them, lest they get a custome in that which is evill.

Secondly, what Rationall Maximes, and Rules of Morallitie to infuse unto them, according to the degree of their Capacitie, and bent of their inclination in that which is good.

Thirdly, how to ingraft those Rationall Maximes and Rules upon the Main Principles of Godliness; that their spirits may be raised, and their resolutions exalted to things Morally Just and decent, not only because

because they are found in reason to be so, but because they who do them, are bound in Conscience through Love and feare towards God to do all things as in his presence, with delight and care to do alwayes that which is well pleasing in his sight. So that all Morall Actions to free them from Hypocrisie, and make them truly virtuous; that is, without all Leaven of pride and self-seeking (which will mixe themselves with spirituall actions also, if care be not taken to set our heart right) must be reduced unto the grounds of Christianity; and made conformable unto the life of Christ; by comparing our way, and our mind in following him, with his way and his mind in walking before us amongst men towards God. And except their education by the Reformation of their Manners finally tend and result unto this; it will avail them nothing towards the salvation of their souls; it will only make lesse them hurtfull unto the societie of mankind.

Now the parriculars which are subordinat unto this Care and studie are innumerable; but yet certain generall Rules may be prudentially set down, according to which, they should be limited and directed to order their Conversation and behaviour towards the ends aforesaid, and by which, those that watch over them should take notice of their wayes.  
and

and give an account thereof unto the Governour. of which Rules it will suffice at this time to give these Heads.

First, laws are to be published amongst them concerning their very looks, their angry words, and their hasty actions, proceeding from passion, and tending to the breach of Christian Love; forbidding the same under the motion that they are contrary to the life of Christ.

Secondly, Rules and Directions (leading them to the practice of Justice, Equality, Meeknesse, Humility, Love and Liberality; and to the hatred of Iniuriousness, Pride and Covetousness) are to be published, and hung up in their Chamber and School, and made familiar and plain unto their Capacity and Memory.

Both these sorts of laws may be gathered out of Salomons Proverbs for the main substance thereof, and from other Scriptures and so be delivered as the will of God unto them, to oblige their Conscience therunto.

Thirdly, the law of watchfulness (which they ought to have over themselves for the observation of these Rules) is not only to be taught them; but some that are more itay than others, and better set, are to be made Monitors of the rest, and besides'the Monitor Spyes are to be appointed to oversee them: and

In Cases of grosse failing, after due admonitions, some exemplary punishments of shame and smart may be used, that all may feare.

Fourthly, the great law of Truth and of Faithfulness (to suppress the baseness of Lying and of Deceitfulness in words, Promises and Actions) is above all other Rules to be prescribed and pressed upon them in their dealings towards one another: and special care is to be had to observe the practise thereof.

And, that the lying and deceitfull spirit may be hunted out from amongst them; a special reward is to be proposed unto every one that shall, upon due admonition of his neighbour before witnesses, discover to the Usher any matter of falshood practised by any. For, nothing doth more inwardly corrupt the spirit, then a course of falshood; nor doth any thing more deeply discover the wickedness of the heart and want of true virtue, then this.

Fifthly, the Civilities to be used towards Strangers, to receive and entertaine them courteously; to be generously affected towards them, and the way to maintein the Principles, and Practises of publick Spiritedness without ostentation and vain-glory, should be described and taught them.

Sixtly and Lastly, the seemly way to carry their Bodies, to looke upon people stayedly and freindly in their saluation and conversation.



sation with them should be made known unto them by Example and Rule.

Concerning all which Directions, how to propose, and apply them, towards the corrupt dispositions of Children to rectifie the same; the Ushers themselves are to be taught their Duty, what to observe in them, and how to proceed in dealing with them. and it must be the Governours great and special care to see the Ushers well principled and practised in this way, for, upon their abilities, faithfulness, and diligence all depends.

*Concerning their Proficiencie in Learning.*

The last and least part of true education is only minded in the ordinary Schools, and that in a very superficial and preposterous way; for Children are taught to read Authors and learn words and Sentences before they can have any notion of the Things signified by those words and sentences, or of the Authors strain and wit in setting them together: and they are made to learn by heart the Generall Rules, sentences, and Precepts of Arts, before they are furnished with any matter wherunto to apply those Rules and Precepts. And when they are taught these things wherein Reason is to be employed, they are lead into a Maze of subtile and unprofitable

able Notions ; wherby their mindes are puffed up with a windy conceit of knowledge : their affections taken off from the plainnesse of usefull Truths ; their naturall Corrupt inclinations to pride , vain glory , and contentiousnesse not reformed , but rather strengthened in perversitie ; So that they become both unwilling to seek , and incapable to receive any Truth either Divine or Humane in its simplicitie : for their heads are filled with certain termes and empty shewes of learning ; which neither containe any substance or solidity of Matter ; or give them any assistance by way of Method to make use of that which they know for the benefit of Mankind.

Now , to Rectifie this cause of our Ignorance and Disorderliness which hath taken possession of all Schooles and Universities , and hath spread it self over all matters of Humane Learning ; wee shall endeavour to seek out the true Method of teaching Sciences , by the Grounds and Rules which , we hope , none , that is Rationall and free from prejudice , will Contradict.

*Concerning the Grounds and Rules of  
teaching Sciences.*

We take this to be the fundamentall and unde-

undeniable Maxime of all Order to be kept in teaching of Sciences, and educating of youth unto any part of Learning: Viz. That the whole way of his Undertaking must be made answerable unto the nature of the End, and proportionat unto the property of the Meanes and Parts of Learning: and whatsoever is not subordinat unto that, and proportionat unto these, is done irrationally and unprofitably towards the advancement of Learning. The Grounds therefore from whence we shall gather all our Rules to direct us in the true Method of profiting, are Three; the first, concerning the End; the second, concerning the Meanes; the Third, concerning the Parts of Learning.

*Concerning the End of Learning.*

The true End of all Humane Learning is to supply in our selves and others the defects which proceed from our Ignorance of the nature and use of the Creatures, and the disorderliness of our naturall faculties in using them and reflecting upon them.

From this Truth follow these Rules of Teaching.

1. That nothing is to be counted a Matter of true Learning amongst men, which is not directly serviceable unto Mankind towards

the supply of some of these defects, which derive us of some part of our naturall Happiness.

2. That if any doth Teach or Learne any science for any other end but this; he doth by the false end, which he proposeth to himself in Teaching or Learning) pervert the Truth either of the Science, or of the Method thereof, or of both: by which meanes, the remedie of our disease being spoiled; he maketh so farre as in him lyeth our sickness incurable.

3. That none ought to be taught any matter of science, before he doth understand the true end, wherefore he is to learne it, and how he ought to use it, towards that end: for if he be ignorant of these two, he will not only lose his labour; but may become hurtfull to himself and others by his knowledge. *For as a thorne goeth up into the hand of a drunkard; so is a parable in the mouth of fools.* Prov. 26. 9. And at the best he will be unserviceable and disproportionat to others in his walking therby: *For as the legs of the lame are not equall, so will a parable be in the mouth of a foole* Prov. 16. 7. Now, he is a foole who knoweth not the end and use of the things which he hath.

4. That to marshall sciences rightly, that they may be taught orderly and profitably; The

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subordination of their severall ends to each other (as they jointly relate unto man to supply his defects) and the way of teaching the same (as it is sutable to the Capacity of those that are to be taught) must be observed: for if these things be not observed; either the sciences will be made useles to each other, or all of them, to him that is taught. For, how can he, that teacheth them, benefit his Scholars thereby? For the Encyclopedia of Sciences must answer the wheel of humane faculties, and this wheel must answer the Circle of the Creatures whence man is to supply his defects. As then in a watch, one wheel rightly set, doth with its teeth take hold of another, and sets that to work towards a third; and all move one by another, when they are in their right places for the end for which the watch is made: so is it with the Faculties of the humane nature, being rightly ordered to the ends for which God hath created them; but, contrarywise, if the wheels be not rightly set, or the watch duly wound up; it is useles to him that hath it; and so it is with the Faculties of Man; if his wheels be not rightly ordered and wound up by the ends of Sciences in the subordination; leading him to employ the same, according to his Capacity, to make use of the Creatures for that whereunto God hath made them; he becomes not only useles



but even a burthen, and hurtfull unto himself and others by the misusing of them.

*Concerning the Means of Learning.*

The true Means by which all Humane Sciences are attainable, are three, and no more: The First, is Sense; the second, Tradition; the third, Reason.

Sense is the first, because it conveighs unto our Imagination the shapes and images of all things, which memory doth keep in store, that Reason may make use thereof. nor can any Tradition be entertained with profit, but that, whereof the Imagination hath received from Sense the originall representations.

Tradition is the second, because it is nothing else, but a Communication of those Observations which others have made of the Creatures, wherby our want of knowledge of them is supplied. For we ought, *To Enquire of the former Age, and be willing to make search of their Fathers; because we are ignorant of yesterday and know nothing, and our eyes upon Earth are a shadow. Job. 8. 8, 9.*

Reason is the third and last Means of Humane Learning, because it makes use of the reports of our Senses, and of other Mens Tradition; and without these it can make no inferences to enlarge knowledge, or teach

teach us the right use of Creatures for necessary occasions.

From the subordination of these Means to one another, and their properties to advance us unto Learning; we shall gather these following Rules of teaching Arts and Sciences.

1. The Arts or Sciences which may be received by meer Sense should not be taught any other way: for it is no wisdom to make work to our selves: *Frustra fit per plura quod fieri potest per pauciora.*

2. Whatsoever in any Art or Science can be made obvious unto Sense, is first to be made Use of, as a Precognition unto that which is to be delivered by way of Traditionall or Rationall precept.

3. As in Nature Sense is the servant of Imagination; Imagination of Memory; Memory of Reason: so in teaching Arts and Sciences we must set these Faculties a work in this Order towards their proper Objects in every thing, which is to be taught: whence this will follow, that as the Faculties of Mans soul naturally perfect each other by their mutuall subordination: so the Arts which perfect those Faculties should bee gradually suggested; and the Objects wherewith the Faculties are to be conversant according to the Rules of Art should be offered in that Order, which is answerable to their proper ends  
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and uses and not otherwise : for the proportion of every thing to its owne end , doth determine the order and place wherein we are to make use of it : for nothing is truly Usefull, but as it is, in its naturall place.

4. As Childrens Faculties break forth in them, by degrees to be vigorous with their years and the growth of their Bodies ; so they are to be filled with Objects whereof they are capable, and plyed with Arts : whence followeth that while Children are not capable of the Acts of Reasoning ; the Method of filling their Senses and Imaginations with outward Objects should be plyed : Nor is their Memory at this time to be charged further with any Objects then their Imagination rightly ordered and fixed, doth of it self impresse the same upon them. Moreover hence followeth, that no Generall Rules are to be given unto any, concerning any thing either to be known or practised according to the Rule of any Art or Science ; till Sense Imagination and Memory have received their Impressions concerning that wherunto the Rule is to be applyed ; and so farre as those faculties are stored with matters of Observation, so farre Rules may be given to direct the mind in the use of the same and no further. Lastly hence followeth, That the Arts or Sciences which flow not immediatly from parti-

particular and sensuall objects, but tend immediately to direct the universall Acts of Reasoning, must be taught after all the rest: because their Use is to Regulate that, which is to make Use of all the rest, viz. the Rational faculty; therefore it is a very absurd and preposterous Course to teach Logick and Metaphysics before or with other Humane Sciences, which depend more upon Sense and Imagination then Reasoning.

*Concerning the Parts of Learning.*

The Parts of Humane Learning wherein Children are to be exercised are first the grounds and precepts of profitable Arts and Sciences. Secondly, the Tongues which are most usefull to enlarge the knowledge thereof.

By profitable Arts and Sciences, we meane all matters of knowledge which direct man to the right use of all Creatures, and the ordering of his owne Faculties about them.

The Tongues which are ordinarily most usefull to enlarge the knowledge of these Arts and Sciences, are Latin and Greek; and that which in an extraordinary way will in due time be usefull heerunto, is Hebrew, and the other Orientall Tongues which are a kinne unto it.

Concerning these parts of Learning,

we lay down these Maximes as grounds of teaching the same.

1. Arts and Sciences are immediatly usefull by themselves to restore the defects of our nature by the Creatures.

2. Tongues are no further finally usefull then to enlarge Traditionall Learning; and without their subordination unto Arts and Sciences, they are worth nothing towards the advancement of our Happiness.

3. The Immediat Use of Tongues is only to Understand what others say to us, according to their custome of speaking; and to expresse our mind unto them significantly according to our custome.

From these Maximes we gather these following Rules of Teaching.

1. The teaching of Arts and Sciences ought not to be suspended upon the teaching of unknown Tongues, but made familiar unto the childrens capacity in their Mother-Tongue first; and afterward enlarged by the Use of other Tongues.

2. The Arts and Sciences which lead us most directly unto the Use of the creatures without any reflexion upon our own Faculties are first to be taught; because they may be taken up by the simple Acts of Sense, Imagination and Memory, without much Reasoning.

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3. The Arts and Sciences which lead us to reflect upon the use of our owne Faculties, are not to be taught, till we are fully acquainted with their proper Objects, and the direct Acts of the Faculties about them.

4. The knowledge of Tongues is the proper effect of Memory, and not of any Reasoning abilitie, because they depend upon the Observation only of that which is the constant custome of people; and not upon any rati-  
onall inducement why they do so. whence followeth. 1. That those things which are most helpfull and subservient unto memory, are to be set a work in teaching Languages; rather then those that employ the Judgement. 2. That the wayes which fix and order the Imagination most effectually towards the sound of the words and the thing signified thereby, are most advantageous to this way of teaching. 3. That the teaching of words, is no further Usefull then the things signified thereby are familiar to the Imaginatiō; and that the teaching of Rules before the Materiall sense of the words is known, or before the formall coherence of things which their construction is to represent in a Sentence, can be apprehended; is wholly preposterous and unprofitable to the Memory.

5. So farre as children are capable of Traditionall knowledge: so farre in every degree of

of Science they may be taught the Tongues which serve for that Use; but till they be fitted for the one, the other is Uselesse to them.

6. Whatsoever in the teaching of Tongues doth not tend to make them a help unto Traditionall knowledge, by the manifestation of Reall Truths in Sciences, is superfluous, and not to be insisted upon, especially towards Children, whence followeth that the Curious Study of Criticismes, and observation of Styles in Authors, and of straines of wit, which speak nothing of Reality in Sciences, are to be left to such as delight in vanities more then in Truths.

From these Maximes and Rules the Rationality of the ensuing Method may be made out to the full, if time did permit; but we shall not insist upon that now: only we shall shew that by them we are led to teach and consider matters of Learning in this Order.

First, to consider the Children that are to be taught; Secondly, the Things which are to be taught unto them; Thirdly, the Manner and way of teaching the same.

Concerning the Children; we must reflect upon their ordinary Capacities, and distinguish the same into their naturall degrees.

Concerning the Things which are to be taught; we must reflect upon a twofold proportion therein. first, we must find out that

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which is proportionat to the degree of every ones Capacity. Secondly, we must order every thing which is sutable to each Capacity, proportionally to the end for which it is to be taught, as in its proper place it is subordinat unto other things, which must follow in the Course of Education.

Concerning the way and manner of teaching and proposing the same; we must studie by the properties of Things to be taught, to find all manner of advantages; and according to circumstances determine the way which will bring no losse of time, nor be wearisome and tedious to the Children, and which will make the matters taught most easie for their apprehension, and delightfull to their affections in apprehending the same. For, I suppose that this Conclusion in this matter is as firme, as any Mathematicall Demonstration in other matters. viz: If all degrees of Childrens Capacities be fitted with proper Objects, if none of the Things, which any of their Faculties can receive, be left untaught, if no time be lost in teaching, nor any thing offered before it be seasonable, if that which is taught in the first place be not disioined from that which followeth after, but made a steppe therunto.

If all matters offered, by their conjunction make him that receiveth them a perfect method leading

leading him without distraction to his true end: and if no servile constraint be laid upon the inclination of him that is taught, by forcible meanes to break his Spirits: but his affections raised to a delightfull willingness, to receive that which is offered; by allurements and generous insinuations readily.

If (I say) all these things be observed, in the Course of Teaching; then little or nothing will be wanting, which can be wished for towards the advancement of learning in this way, or can be prosecuted by rationall endeavours and humane Industry.

*Of the Ordinary degrees of Childrens  
naturall Capacities.*

Till a Childs tongue be untyed and confirmed in some measure to speak and imitate the ordinary Sounds of speech; he is to be counted an infant. and this ordinarily is not till Children be four or five yeeres old: yet, before this time their Senses are awake, their Imagination is not idle; and therefore ought to be exercised with some Objects fit for the framing of their Memory towards future preparatives of Learning.

From the time of Infancy, till the age of Pubertie; there are three different degrees of Capacities, which ordinarily shew themselves

in three periods of yeeres ; from foure or five till eight or nine , is the first. from eight or nine, till thirteen or fourteen , is the second. and from thirteen or fourteen , till nineteene or twenty, is the third period of Capacity.

In the first of these periods , the Capacity of Children is none other but Sense and Imagination , with the beginnings of Memory.

In the second , it is Imagination and Memory with the beginnings of Reasoning , and now we count him past Childhood , and he comes a youth.

In the third, he is Capable of all the Arts of Reasoning , and of the Principles of Judgment and Prudencie ; wherby he ought to order himself in all things aright toward God and Man. And when a Schollar is brought thus farre , he is not to be under Tutors any longer : and till he be brought thus farre, he is not safe , without some Tutoring and Discipline.

*Concerning the Things to be taught to each degree of Capacity.*

First , while a Child is capable of nothing but what he receiveth by Sense and upon the similitudes of sensuall Objects , by Imagination, nothing is to be offered unto his Memory but what can enter in, by those doores. Here he is to be taught.



1. To speake his Mother-Tongue ; distinctly.
2. To read his Mother-Tongue readily, intelligibly, and without any affectat Child-  
ish tone, with his owne naturall sound of speech.
3. To write his owne Mother-Tongue legibly ; or any other Tongue what soever, as to the forming of any Letters after a Cotype.
4. To draw all manner of Lines and Mathematicall Figures with a Ruler and compasses ; and other Lines and Figures, which are the Rudiments of Painting to represent the lineaments and features of things.
5. To know the signification of all Numericall Figures ; and to observe by the eye, by the hand, the differences of Things in respect of their number, their parts, their quantities, their measures, their proportions and disproportion, and the like.
6. To take notice of all Things offered to the Senses ; to know their proper names, to observe their shapes ; and to make circumstantiall descriptions thereof by word of mouth, and painting in black and white.
7. To mind, and repeate the things which are to be related unto him ; which should be the Generall Heads of the History of the world ; whereof the ground work should be

the Historicall Cathechisme of the Bible and the superstructure, a description of the Parts of the world ; of the Things that therein ; and especially of the Nations of earth ; and the Chiefest Revolutions and Changes which are befallen to his owne Nation since the beginning thereof.

These things ought to be taught unto Children before they come to any of the Usages belonging to the Association ; for (none under eight or nine) ought to be brought unto them except they be sufficiently qualified before the age with these endowments : and that these things may be taught sufficiently, as a preparative for their future education in Sciences ; a peculiar School should be appointed as a Nursery not farre from the place of the Society wherein Children of this Age should be trained up according to the Directions which may be given to that effect : and although the Governor should not be charged with any peculiar inspection over them ; yet he might be obliged to repaire thither at certain convenient times to helpe with Counsell, by conferring with those that should teach them these things, and to oversee their way, and direct them chiefly in point of Manners ; how to prevent evil Habits, and the Customes of perverse inclinations, which then beginne to take head and discover themselves : and for want of due

prevention become ordinarily a great prejudice to their Education in after times.

Secondly, from eight or nine, till thirteen or fourteen, a Childs Imagination and Memory is throughly to be cultivated and exercised; supposing then, that a Child can speake his Mother-Tongue distinctly and readily, can read and write, and hath gotten a generall view of all things, and is able to name that which is obvious to his Sense by its proper name in his Mother-Tongue; yet these impressions and shapes of Things are like a Chaos or confused masse of notions in his head. These now in the second Period of his Education are to be Ordered, and his Memory so exercised about them, as to prepare him to entertaine the Traditionall and Rationall Learning which in the third and last period of his education is to be delivered concerning them. Heer then the Children shall be exercised.

1. In writing faire and readily; and in drawing the pictures of Things whereof the Impressions are to be fixed in their Memories.

2. In observing all Things Naturall and Artificiall extant in the world, wherunto their Imagination shall be ledd in a certain Method; to cause them reflect orderly upon them, and observe in them their severall  
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kindes, coherences, differences, parts, actions, properties, uses, and references unto Man, be Trades and Manufactures.

3. In Learning all the Names of the Things themselves and of that which doth belong unto them in Latin, in Greek and in Hebrew; which Tongues they shall withall Learne to Reade and write; and to Interpret so farre, as their experience in the observation of Things doth go, and no further: For so farre their *Janua's* in each Tongue shall go, and be offered to them *pari passu*, with that which they have been taught to observe in the Things themselves.

4. In the Practicall Parts of the Mathematicks; wherein they shall be taught (together with their Latin, Greek, and Hebrew names.)

1. The Geographicall Descriptions of the world, and of the Kingdoms thereof in Globes and in plain Tables.

2. The Astronomicall descriptions of the Heavens, in Models, Globes and plain Tables.

3. The Arithmeticall Rules of Addition, Substraction, Multiplication, Division, the Reduction of Fractions, and the Rule of Proportions called the Golden Rule, and no further.

4. The Geometricall Doctrine of Lines, Surfaces, Bodyes, and the Rules of Measuring the same, and shewing their proportions, together

gether with the experimentall way of Measuring Land, and the use of the Instruments belonging to that part of Mathematicall studies.

5. In the observation of Husbandry and Gardening ; of Fishing and Fouling ; and the generall Rules thereof.

6. In the Anatomy of Mans Body by a Model and Picture of all his parts, with their names in the Learned Tongues.

7. In the Summary knowledge of the History of the four Monarchies of the world, and of their own Nation : together with a Brief of the History of the Church since Christs dayes.

8. In the Rudiments and necessary Rules of Grammaticall constructions ; so farre as may inable them to interpret their *Janua's* whereof they shall have Learned the Single words with the observation of the Things themselves ; and these Rules in all the three Languages are to be given, first in that wherein they agree ; and afterward in that wherein they differ : and exercised in the reciprocal Translations of their *Janua's*.

Thirdly from thirteen or fourteen, till fifteen or twentie ; the things which are to be taught them , and wherein they shall be exercised , are all the Usefull Arts and Sciences, which may fitt them for any employment in Church and Common wealth, Here then



all the Meanes of Traditionall and Rationall Learning are to be set a foot; and to this effect they shall be taught their Grammar Rules more exactly and fully then formerly and brought to read Authors in all the Sciences whereof they have gained the foundations; with directions how to observe the Marrow, and Method of them; and out of them to gather to themselves an Encyclopædia. To this effect.

1. The Latine Authors of Agriculture Cato, Varro, Columella, may be put into their hands by parcels, to be an enlargement unto that which they have already been taught concerning Husbandry.

2. The Naturall History of Pliny and Others, by choice parcels are also to be perused by them; and brought home to what they have formerly seen; together with the Histories of Meteors, Minerals, &c.

3. In like manner some Models and books of Architecture, Enginry, Fortification, Fire-works, Weapons, Military Discipline, and Navigation are to be looked upon.

4. The Greek Authors of Morall Philosophie, Epictetus, Cebes, Arrianus, Plato, Xenophon, Plutarch; and some Latin Tracts in this kind should be read by them; and an account taken of their proficiencie thereby.

5. The Doctrine of Oeconomicks, of Civil Govern

Government, and Naturall Justice and Equitie in the Laws of Nations should be offered unto them; as the grounds of that *Jurisprudencia* whereof the summe is to be given out of the Institutions of Justinian and *Regulæ Juris*.

6. The Theorie of all the Mathematicks, with the full Practise of that which was deficient in their former Institution; where the Opticks with the Instruments belonging therunto, and the Art of Dialing is to be entertained; and in Arithmetick the way of keeping Accounts.

7. The Principles of Naturall Philosophie and the main Grounds of Medicin, with the Instruments of Distilling and other Chemicall Operations, and the Art of Apothecaries, are to be offered unto them partly in books, partly in the Operations themselves by an ocular inspection thereof, and of their drugges.

8. The Art of Chirurgery described in books, with an ocular inspection of all their tooles, and Compositions of plaisters and ointments, and the use thereof.

9. The Rules of Logick, Rhetorick and Poesie; shewing them first how to Analyse Authors, and observe their Art of Reason and Utterance to perswade: and then how to order their owne thoughts and expression, to  
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search out Truths and to declare the same Historically, Philosophically, Oratorically, Poetically.

10. Directions for the studye of all Humane Histories and what to observe in them, for the attainment of Wisdome and Prudence in the Government of a mans owne life; where with the Directions to observe the wayes of others; the Rules of Judgement, Discretion, Prudence and Civill Conversation to order their owne wayes aright towards all, are to be given unto them which is to be concluded with a speciall recognition and insight into Salomons Proverbs, and Ecclesiastes. And so they are to be sent into the world to apply themselves to any employment, or more particular study wherunto God shall call them. For now they will be fitted therunto so farre as Humane Industry can advance them.

Amongst all these, I have not mentioned Musick, Vocall and Instrumentall, by it self, because it is a part of the Mathematicks and the Practise thereof is to be insensibly at spare times brought in use amongst them as a part of their Recreations. Nor have I mentioned any Hebrew books which they should read; because their daily reading of the Scriptures should be in Greek and in Hebrew: and their Analyticall exercises should be employed for  
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the most part in resolving the Rationality of the Scripture about the most Materiall Doctrines of Divinity : Nor have I mentioned any particular Body of Divinity to be put into their hands ; because I speak only of the Method of Humane Learning , how it should be delivered ; and no Divinity is to be taken up from the teaching of men : it is to be received from the Holy Scriptures alone : and the daily Catechetickall exercises and conferences which will be appointed for these of this third period ; will sufficiently by Gods blessing enable them in all the Truths of Divinity both Theoretickall and Practickall ; so that there will be no need of any other Institution in that kind.

Thus I have done with all the Matters which are to be taught to each degree of Capacity within the period of the years appointed for their education : now followeth the Last point of this Method ; how all this is to be taught and expedited within the time appointed with ease and delight.

*Concerning the Manner and way of Teaching all these things, to Each Capacity.*

In the Manner of Teaching , experience will bring the way unto perfection , if it be prosecuted , according to the Maximes , and Rules

Rules heretofore mentioned, in a Constant Course. And to be able to put the design in Practise; three main things must be ordered: first the taskes of both the lesser and the greater parts of the work must be determined according to times and seasons; what and when every thing is to be done.

Secondly, the way of proposing to the Schollars that which they are to receive, and of entertaining them to dwell upon it, till it be fixed in their mindes, must be regulated.

Thirdly, the meanes and instruments whereby, all taskes are to be performed on all hands, both by those that propose, and those that receive and entertaine Learning, are to be had in a readiness and ordered for Use.

*Concerning the Taskes what and when every thing is to be done.*

Salomon teils us, that *There is a season to every thing, and a time to every purpose under the heaven; Eccles. c. 3. v. 1. and v. 11.* and that God hath made every thing beautifull and consequently, delightfull and acceptable, in its proper time. If then we can discern this time, and determine the work to be done in it we shall find successe in it, and that with ease.

In the first Period, from five till nine; an Order of taskes must be observed in the preparatorie School, as well as in the other following.



lowing. but now we shall not speak thereof, because we suppose that such a School cannot be had speedily ; and that we must take such Scholars at first as can be had ,till Schoolmasters be trained up who shall be able to follow the Directions which may be given for the training up of Children in such a Nursery.

In the second Period, from eight or nine, till thirteen or fourteen, we have five years, to bestow upon the Objects of Learning which are proper to that Age and Capacity , whereof the Perfection is nothing else but Memory. These five years shall be divided into three parts , whereof the first and second shall each comprehend two years ; and the third , one.

In the first part (that is in the two first years of this period) they shall be led through all the Objects of Fancy and Memory belonging to that Period in the Method; which shall be prescribed unto the Ushers : and to every thing which shall be shewed them by their Ushers ; the Latin and Greek names shall be added and commended unto their Remembrance. so that here, in these two first years they shall be obliged to runne over all the taskes of the whole period , to take up the Ideas thereof, and keep them in memory with their two Learned names only. And to that effect, in the first quarter of the first year, they shall be diligently exercised in writing the Latin

tin and Greek characters faire and readily, and in copying out some Pictures, and the Figures of Models of Things.

Then in the last quarter of that year, when they are stored with almost the half of the words of those two Tongues; the Rudiments of the Grammaticall Rules of both Tongues are to be taught them, so farre as to help them, to make use of their *Janua's* therein, which from that time forward they shall be made to ply diligently, till towards the end of the second year; then about the last quarter thereof, they shall be taught to write Hebrew faire and readily. and when they have attained to some perfection heerin, the Rudiments of the Hebrew Grammar also shall be taught them, so farre as it doth agree with that which they formerly learned of the Latin and Greek Grammars.

In the second part of this period (that is in the third and fourth years thereof) the same taskes which formerly were taken in hand and prosecuted shall be renewed by the same Method of leading them through all the Objects belonging to the whole period the second time, only with a twofold difference: first, that to the Latin and Greek names of Things which were formerly taught and now are to be repeated, the Hebrew shall be added. Secondly, that in this second course of observa-  
tion

ion they shall descend to some things more particularly in every Object, then they did in the first course; and in a way more exact and distinct: whereby they shall be taught to look upon every thing so, as to take up the notion thereof orderly in four things when they once have gotten the Generall shape thereof in their mindes. The First is, to look upon the parts thereof, and know their distinct names in the learned Tongues. The second is, to look upon the properties of those parts and the forme or frame of the whole arising from thence. The third is, to look upon the Action or Passion or fitness to Action or Passion which ariseth from that frame and properties of the whole and parts. And the Fourth, is to look upon the usefulness which the thing, with the parts, properties and Actions thereof, hath towards man. When every Object formerly observed in the bulk shall be thus reviewed in these particulars, and the chief names formerly not mentioned added therunto; the second course of this period will be also finished: whereof at this time, this only is further to be added; that, at the latter end of the third year, and the beginning of the fourth, the Grammaticall precepts are fully to be delivered in each Tongue in respect of their differentiall properties, which thenceforth are to be taken notice of in the Use of their *Janua's*. In

In the third and last part of this Period (that is in the fifth year thereof) they shall repeat all what in the four former years they have learned : but Chiefly the Additional part of Learning, which the second Course had, more then the first ; that is, their Hebrew Janua; the particularities, to be taken notice of, in the Observation of all Sensuall objects, and the Grammaticall difference in the Constructions of the three Tongues.

In the third Period of Learning, from thirteen or fourteen, till nineteen or twentie; we have six years to bestow upon the Traditionall and Rationall wayes of Teaching the Sciences: those years also shall be divided into three courses, and to each course two years shall be allotted.

In the first course of this third Period, all the Sciences belonging therunto are to be delivered Historically, which may be done three wayes. First, by way of ocular Demonstration in things that can be shewed unto Sense in every Science, whose subject hath any thing of Sense in it. secondly, by way of Schemes and Pictures to represent Hieroglyphically those things that have no visible shape; and formally those things which have a reall shape but are not at hand to be seen and shewed unto sense. And thirdly, by way of Narratives and Relations, expounding both the  
which

which is shewed unto Sense, and that which is offered unto it in Pictures and Schemes, whether Hieroglyphically or Formally.

In this Course (besides their *Janua's* which are to be repeated) the easiest of the Latin and Greek Authors which handle the Sciences (whereof the Ideas have been offered unto them) are to be read by them according to the Directions which shall be given: and after the first year of this course (or sooner as upon triall shall be found expedient) their speech shall be wholly Latin; and to beginne to translate some remarkable passages of Greek Authors into Latin, and of Latin Authors into Greek; shall be one of their exercises.

In the last quarter of this course (or in the last half year as experience shall direct) the grounds of Logick shall be taught them so farre as to let them see. 1. What the faculty of Reason is in man, and wherein it doth differ from Imagination and Memory. 2. What the Use thereof is in all Sciences. 3. What the Acts thereof are, in making up many single thoughts into Propositions; and of many Propositions laid together to draw thence Consequences. 4. How that these Acts are to be taken notice of, and observed in the Authors which they have read who write of Sciences; in whom they shall be taught to Analyse some of their Rationall Propositions and



and consequences. Thus the first course of the period shall be ended.

In the second course (that is, in the third and fourth year) of this Period, all the Sciences belonging to the whole Period shall be taught Dogmatically; that is, the Rules and Precepts thereof shall be delivered, according to that Order wherein they are subservient unto the Necessities of Man, and branch themselves out one upon another; the latter growing up from the Principles of the former; and all tending to make the Creatures serviceable unto Mankind; or to rectifie his disorders within himself. In this Dogmaticall course of Sciences, towards the latter end of the first year thereof (that is, in the last quarter of the third year of this period of Education) the Precepts of Logick shall be fully taught, first the Analyticall, and then the Geneticall way of Reasoning, to find out Truths which are doubtfull, and towards the latter end or the middle of the second year thereof, the Precepts of Oratory and Poetry shall be taught them; and they directed to observe in the Authors which they have already perused, how those Precepts have been put in Use by them, that they may learne to imitate their practise.

In the third course of this period, that is, in the two last years thereof; all the Sciences belonging to the period shall be taught Practically,

atically, that is they shall be exercised in the  
practise of all that which they have been  
taught, in the whole former Course of their  
education: and they shall be put upon the  
occasions of making Use of their skill in every  
Science for their own and others advantage,  
and the improvement of the wayes of lear-  
ning: and here as their Genius shall lead  
them, they shall be left a little larger scope to  
follow it: either in wayes of Action, or of  
Theorie, or of Utterance: in the first year of  
this course they should be exercised and put  
upon the practise of all; but in the last year,  
according as their Faculty should be found  
most eminent (with some few Directions and  
Manuductions to Improve it) they should be  
suffered to apply it to the subject which  
amongst all the Sciences they should like best  
to exercise themselves in. And in the latter  
end of this year, that is, in the last quarter  
thereof, having received such Directions  
for the future Government of their life as will  
be found necessary to order it Judiciously and  
Prudently; they may be dismissed to take  
some Publick Service in hand; or follow  
some private Calling which the Comman-  
wealth doth stand in need of.

And thus I have reckoned up the main  
and generall Taskes, as they are to an-  
swer the years; the subdivision thereof  
into

into moneths, weeks, dayes and hours will not be difficult; and needeth not now to be insisted upon, but must be delineated before we set upon the work it self. We come now to speake in brief of the way of proposing those Taskes unto the Scholars, and of their way of entertaining their thoughts about them.

*Concerning the way of proposing all the parts of Learning unto the Scholars, and of their entertaining the same, to fixe their mindes thereon.*

The way of proposing matters of learning is as considerable as any thing else in the work of Institution; and next unto that is the way of entertaining that which is proposed: the first of these is the proper work and industry, of the Governour and Ushers; the second, of the Scholars themselves, although the Ushers also may and ought to have some hand therein.

For the proposall of every thing, the Governour shall prepare the particular matters of every thing which shall be taught for every houre of the day, throughout the whole course; and deliver the same in writing Quarterly, or Monthly (at least) beforehand unto the Ushers; that they may be in full readines and perfectly exercise themselves in every thing which they shall deliver to their Scholars  
and

and the Matters should be thus long predeter-  
mined before hand, and given to the Ushers,  
that if upon good grounds they shall suggest  
any thing to the Governour for an alteration  
of that, which he shall have prescribed; it may  
be in time considered between them, and or-  
dered as need shall require, or found most  
expedient.

The Matters to be proposed being thus  
prepared, when the time comes to offer them  
to the Scholars; the Governour shall for every  
different kind of exercise and Institution give  
Directions unto the Ushers, how to behave  
themselves towards the Scholars, to make  
them affectionat towards the taske which is  
to be offered unto them, that is, attentive and  
ready to receive it: and to make them more  
perfect in following the Directions and Rules  
which in this nature shall be given: he shall  
himself give them an example of the Practise  
of it towards the children; shewing them, at  
every change of exercise and different way  
of Institution, how they should go about their  
work: he shall therefore teach the first lesson  
of every kind himself in the presence of his  
Ushers, that they may observe his way: and  
at the second lesson, when they shall beginne  
their work; he shall be present at it, to ob-  
serve them how they performe it, and tell  
them of their faults if any be committed.

Two

Two things are fundamentally to be heeded in the Manner of proposing every thing: First, that the Schollars before the thing be proposed be made sensible of the End, wherefore they are taught them, and they ought to learne it, what the necessity, use, excellency and perfection thereof is in the life of Man &c. Secondly, that the way of offering it unto them be the same at once to all, by all alike perceivable, common, plain, distinct and orderly in every part. And to these two fundamentals whereof the first relates unto the Will, the second, unto the Understanding; a third may be added relating to the Memory, which is that in the Method of proposing every thing this Rule be observed.

Let the Generall notion of every Object or the shape of the whole; be first offered unto the Imagination, and then the parts which are contained under it, to be represented unto the thought by way of Division. and this being done; Let the mind afterward be led retrograde to review the parts as they look to one another; and make up the whole by way of collection.

And at the conclusion of every lesson, a brief and summary Recapitulation of the whole which hath been offered unto them is to be proposed; and the Question should be asked whether any hath a doubt of anything? or would



ould have something repeated, nor further ex-  
tained that they should speak.

The way of entertaining that which shall  
thus proposed is partly in the Scholars by  
themselves, partly in them together with their

masters. By themselves they shall retain the things  
which have been taught them, by the exerci-  
se of writing, of painting, or drawing figures,  
of compensating, and of methodizing, as  
they shall from time to time be directed, for  
fixing of their thoughts upon that which  
they shall have received, and by the reading,  
and understanding, and translating of their  
masters, or of their Authors from one  
tongue to another, according to the way  
which shall be shewed them.

Now, as the proposall of a lesson shall not  
be above half an hour, at the most, so the  
entertaining of that which hath been offered,  
shall follow immediately thereupon, for the  
space of another half hour, so that to every  
lesson, a full hour, and no more, shall  
be allotted, whereof the first part shall be spent  
in receiving, the second in entertaining the

Things received together with the Masters shall be two ways.  
By shewing the exercises wherewith they  
entertain their thoughts by themselves.

2. By a constant course of Repetitions to be observed daily, weekly, monthly, quarterly and yearly; whereof particular Directions are to be given in due time: but the general Rule of proportion in all Repetitions to be observed is this; that the third or fourth lesson, or period of lessons, is alwayes to be Repetitive in some degree or other; more or lesse, as the matter is more or lesse difficult, and generally rather the third is to be made Repetitive of two, then the fourth of three: but experience will best determine what is most expedient to be done in this.

*Concerning the Means and Instruments which are to be had in a readinesse, and ordered for use, that these Tasks may thus be prosecuted on all bands.*

**T**He things necessary to be made use of in bringing all this to passe, are 1. a convenient House fitted with rooms, where the Scholars may be at their exercises. 2. the lasticall Furniture, & dressing of those rooms. 3. the Books and other Implements, which the Ushers and Scholars must have at hand.

The House, where this course of education should be intended, must not be within the City, but should be near unto it, in a fair, large and spacious; and as it were in the Countrey, with large gardens and orchards.

near the places of tillage and of pasturage,  
that the Countrey may afford unto the Scho-  
lars the aspect and observation of all Natu-  
rall things, wherein they are to be taught, and  
the City may afford them the sight of all  
Artificiall things, of all Trades and Manu-  
factures, wherewith they are to be made ac-  
quainted.

The Rooms wherein the Scholars should be  
their exercises, should be foure: Three lesser  
ones, for each Usher and his peculiar Scholars  
one, and one large one; or rather a Gallery  
which should be for common Use unto all.

The Scholasticall furniture and dressing  
of these rooms, ought to be this.

The large common room ought to be fur-  
nished with all manner of Mathematicall, Na-  
turall, Philosophicall, Historicall, Medicinall,  
Hieroglyphicall and other sort of pictures,  
maps, globes, instruments, models, engines,  
and whatsoever is an object of sense in refe-  
rence to any Art or Science, these things  
are to be set in their order, according as  
they are subordinate unto severall Sciences;  
that at the times appointed, the Ushers may  
lead their Scholars into it, to receive the les-  
son, which they shall give them, upon the  
ocular inspection of the Things, which shall  
be shewed unto them.

The lesser rooms each ought to be furnish-

ed with a high seat for the Usher, that he may  
 overlook all his Scholars, and with several  
 distinct places, so ordered for the Scholars  
 to sit or stand in; that their faces may be  
 towards him: and each in his place may have  
 his own desk, to keep all his papers and other  
 things as he used in good order. In each  
 those rooms there should be an iron stove  
 or floue to keep it warm in the winter.

The Books which the Scholars shall have  
 the School shall be none but such as the  
 Usher shall put in their hands. In the second  
 Period of Instruction, they shall have  
 books but their Latine, Greke and  
 Brew Janua's, and the Bible of the Old  
 New Testament in these Tongues, and  
 their Mother-tongue. In the third Period  
 besides these books, they shall have  
 time to time, such as their Master by the  
 vigorous direction shall furnish them with  
 and none other & nor any longer then  
 shalke for.

The Instruments besides pen, ink and  
 paper, shall be a pen or stick with black lead  
 pen-knife, a pair of compasses, a ruler  
 slates and some other implements which  
 time to time shall be put in their hands  
 taught to make use of according to the  
 degrees of their proficiency.

## Of Teaching LOGICK.

**B**Y Logicke I understand the Art or skill, to make right use of our reasoning Facultie. The facultie of Reason in man, is that abilitie, by which he can set his thoughts in order to judge of all things, which are in his Imaginations.

As large then as the Imagination or Fancy of Man is, so large is the use of Reason; that is to say, it doth reach unto all things, that can be thought upon, for all the thoughts of the heart of Man are contained under this notion of Imaginations; whether they have an Idea or not expressly formed in the mind; for some thoughts are negative to all Ideas. By an Idea I mean the shape and representation of something which the mind doth frame unto it self by the Imaginative Facultie: for, the imaginative Facultie is like a looking-glasse, which being turned to any object whatsoever doth receive the shape thereof, and represents it to the eye of the Understanding: If then the understanding Facultie doth look upon the shapes of things, which are in the Imagination not confusedly, but in an orderly way, to compare them and lay them together for some purpose and aim, for which they are taken in-



to consideration; then it is said to proceed rationally; but if it hath either no aim at all, or no command of its own thoughts or doth to rule and order them to that aim, which doth consider them for: then it doth proceed without Reason. Now because to man, the Facultie of Reasoning is that universall Light by which he is to guide his wayes in all particular objects as well of Meditation, as of Action; therefore if this Light be darkened in him, then all is nothing but darknesse: but if the eye of his Reason be clear, then all is full of Light, which he doth undertake to Act or Meditate. For this cause the Art of Reasoning as to Man, is the chief of all other Arts and Sciences in humane things; for by all other Arts are found out; and whatsoever is amiss in them may be rectified: and consequently to teach how to make use of the Reasoning Facultie, which we have to some good purpose, is in all humane things, the matter of greatest importance that can be thought: and yet such is the miserie of our life, that there is scarce any thing lesse minded; or when minded, lesse taught in a right and profitable way. I shall not at this time intend to make this charge good against the ordinary Teachers of Logick, who for the most part, are so farre out of the way of right Reasoning, that their very precepts are lesse

en rationall, and they themselves incapable  
better Rules, till they be wholly untaught  
at which they have learned. But I shall (as  
specially as may be, to be well understood) deli-  
ver my conceptions of the right way of teach-  
ing young Scholars the Art of Reasoning by a  
positive Method to direct them in it, that in-  
d to teach others. I will suppose then, that  
young Scholar is brought unto me, who is  
*puris Naturalibus* (as we use to say) that  
who is capable of institution in this kind,  
being no wayes prepossessed with any ha-  
bits, which may make him unfit to receive  
the documents which are to be given him:  
and as being onely possessed with the com-  
mon Notions of Naturall things which are  
the objects of humane Senses; and under-  
standing no more, but the proper sense of all  
the words of the Language, by which the  
Notions are expressed in the common speech  
therein he is to be taught. To such a young  
man I first would deliver some common Pre-  
cognitions concerning Logick, and afterward  
would exercise his Reasoning Facultie in the  
way of Meditation whereof I should find him  
capable, growing upon him by degrees, till I  
should make him master of the use of all his  
thoughts, to all purposes, which he should ap-  
ply them unto.

The Precognitions should bring him to  
consider himself.

1. That he hath a Naturall abilitie to think and meditate, as all other men have.

2. That men of understanding are distinguished from fools by this, that they can make use of this Abilitie understandingly, that is to say, that they understand themselves what they do think and meditate, in what order and to what purpose.

3. That therefore there is some way to order and direct the thoughts of the mind, that they may not wander at random as fools, but use their thoughts use to do.

4. That this way to order and direct our thoughts, being taught and delivered by certain Precepts is called the Art of Reasoning or Logick: and that he who is exercised to follow the same is a Rationall man or good Logician.

5. That of all other studies, this is the most worthy of a Man, most profitable and most necessary to attain to the happiness of this life, so farre as by humane faculties it is attainable: and therefore, with most earnest Affections and desires to be attended unto.

Having by such Preparations as these are, fitted his Understanding and raised his Affections to docilitie and attention; I would begin to deliver unto him some Precepts concerning the use of his first Notions, and single thoughts, to teach him to take notice of them

them, what they are: not reflexively by the Term of a second Notion (as the ordinary Logicians do, teaching their Scholars to speak they know not what, nor to what use) but directly in the Terms of a single Proposition, to cause him to take notice of the Subject and Prædicat thereof, and of the connection of each to other in a way Affirmative and Negative: shewing him that every word in our common speech, doth stand for a single thought or Notion of the Mind, and that the words which we speak, should in their order and coherence expresse the order and coherence of our thoughts.

Having then shewed him what a single Proposition is, what parts it is made up of; how these Parts are set together in our thoughts: what the Differences of single Notions are; and of the wayes of their setting together to make a Proposition of them; and how a single Proposition doth differ from compound: How a compound is made up of two, three or more single ones: and what wayes of composition are, and their differences; and consequently, How many sorts of Compound Propositions there are in our Notions to make up a Period of speech: having, I say, shewed him all this, not in abstracto and Notionally, but by an Example of every kind, and in concreto, as it were sensibly,

libly in the Period of some discourse laid open to his thoughts, and analysed before him; that they may be as it were led by the hand to consider of it; then I would set him a dayly task of new Examples which he should be obliged to take into his consideration, to Resolve Analytically by himself according to these Precepts, which I should have given him concerning single and compound Notions and Propositions; to the end that by the exercise of his thoughts in Resolving the ordinary Periodicall Discourses of Rational men into these Parts and Particles of Parts whereunto they are Rationally Resoluble: he may be accustomed to observe what use men make of their Notions single and compound to the extent of one Period of their Discourses: Now whether the Notions which he exercised in be materially Rationall or no, is not at all materiall to his Instruction, because in this first degree of Precepts, he is only taught to take notice of the Difference of Notions, and of the frames wherein they are set together, in the expressions which rationally men use or may be used, but whether they be rightly used in this place, and in respect of such and such matter yea or no, that is not to be the object of his consideration at this time, that is to be taught afterward at due time.



This being done I would proceed with him to the second degree of Precepts, which should direct him to understand the use of his thoughts in matter of Consequence, when one Proposition is drawn out of another and becomes a conclusion arising from it. Here I would let him know what a Consequence is, How many wayes Consequences may be inferred from premises, and what the Principles are, from which Consequences are raised, and by which they are to be tryed, and may be made Conclusions. In this part of the Doctrine as in the former, I would shew him by examples of every kind, how men of understanding make use of their thoughts, analysing their discourses wherein such Acts of Reasoning are expressed, whereof he should have received Precepts; and then according to the pattern of Meditation, which I should have given him in this kind, I would oblige him to exercise himself by certain discourses containing Principles and Consequences drawn from them in some Authors, which he should be put to resolve, as to the matter of Consequentiall Inferences, and the Acts of drawing Conclusions from Premises to observe; how these that use to discourse rationally do order their thoughts and expresse the same to the capacite of others.

Then the Scholar whom I should have taught.

taught these things, should in the third place be directed to take notice of the Acts of Reason, which are employed about the Apprehension of Arguments, and the relation of one thing to another by the Notion of an Argument. Here then he should be taught what an Argument is, How many different sorts of Arguments there are in the use of Reason to be laid hold on; what their different Relations are, and force of arguing, towards that whereof they are conceived to be Arguments. This also should be laid open to him by Precept and Example, and Practically in the Analysis of some Discourse; or parcels of Discourse in an Author shewed. How these that are most rationally make use of those Arguments in their Discourses; and when he hath been taught to observe these acts of Reason in an Author, he should be put as at former times to analytical Tasks to resolve the matter of some discourse into the verall Arguments which it containeth, as they stand singly by themselves, whereby he should be able upon examination to tell where his Author maketh use of an Argument taken from the Cause, or from the Effect, or from the Subject, or Adjunct, or the whole or the part, or contrary or similitude &c. and when he should be complete in this kind of Exercise, then he should be brought

to the fourth and last degree of Analyticall Doctrine, which is to learn to consider the whole Body of a discourse, and to observe all the Acts of Reason, which a man of understanding doth make use of therein. Here then he is to be taught what a Rationall Discourse is, what is to be observed in it. viz. the Subject whereof it speaketh: the Scope and Purpose whereto it speaketh; the Parts whereof it is made up; their Coherence and Distinction, as well in respect of the main Body, as of every particular member of this Discourse, and the order of every thing contained in it, with a reference to the matter and scope, that the whole wisdom of the Authour may be discovered. And to instruct him to observe all this in an Authour I would Analyse a Discourse to shew him, How he should proceed in ordering his thoughts to reflect upon all these things in his Authour; and having both by Precept and Example shewed him what he ought to do: I would give him a task to exercise his mind to do the like, and wherein he should fail, I would rectifie him till he should be complete in this Act, and use of his Reason also.

All this being done by these degrees of Analyticall Doctrine, and as it were experimental manuduction of his thoughts to the

the Practise and use of Reason; I would then bring him to exercise his Reason Genetically, that is by a way of begetting and producing Notions within himself concerning a Subject which should be given him to Meditate on Rationally. Here then he should be taught what the Difference and use is of Analysis and Genesis: *viz.* that by the exercise of the former we reflect upon the Acts of other mens Reasoning, and by the exercise of the latter we stirre up our own Facultie to make use of it, to produce Acts answerable to the Rules which we have been taught. And to make him complete in this way also, First the Precepts belonging to the way are to be delivered, and then an Example of those Precepts is to be given, and according to these Precepts and Example he is to be exercised, first to meditate upon a simple *thema*. (as they call it) Genetically, and then upon a compound *thema*. By a *thema* is meant a Matter of Meditation, which is either a single Notion or a Proposition, either simple or compound: of which things it is needlesse now to speak at large. The summe of all is this: that the Right use of Reason is to be taught first in the Practise, before it be taught in the Theoric, and the Analyticall way of Practice is to go before the Geneticall, and in this teaching the feyall

verall degrees of every Practice are to be observed, and in every degree, whether the Precepts directing the to mind observe the Rules of Practice, go before the Example which the Teacher is to propose; or whether they follow the same as observations, to cause the mind reflect upon the things to be imitated in the example, or whether some Precepts be given by way of *Præcognita* before, or some by way of observation after the example; it is not greatly materiall: if they never be separate, but go in their own degree of exercise together, the one always giving light to the other, and both fitted by the Prudencie of the Teacher to the capacie of the Scholar. And when the use of Reason hath been thus fully taught in a Practicall way; then the Scientificall and Notionall Precepts thereof are to be delivered reflexively upon the Rules of Practice, which have been fully conceived. For the direct knowledge must be proposed before the reflex be offered, because none can reflect upon his way of knowing before he hath attained it; therefore the way of knowing Actualiy must be experimentally proposed, before the Theoreticall way of apprehending matters be reflexively taught; which is quite opposite to the Practice of those that teach Logick in an ordinary way: who deliver all  
even



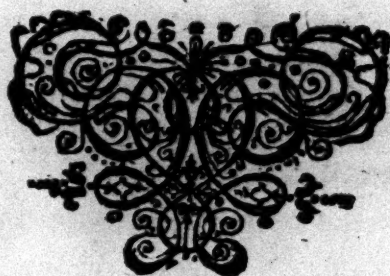
even to Children Reflexively and Scientifically : before they exercise them in any point of Practice , except in that of a confused, endless, unprofitable way of disputing about Notions which is falsely called Logick , by which means those that should be made Scholars of Right Reason , are made habitually wranglers about the Terms of an Art, which they never have been taught : and in stead of making use of their Rationall Facultie, to order it in a way to order their Imaginations aright, they are onely directed and exercised to subtilize their Imaginations, and pride themselves in this mainly to have such conceptions, as are beyond the vulgar Capacitie. As if to speak things in the air and out of the common use were to be Rationall : but of the originall of these Abuses, of the way, How men should be convicted of them and the means, How to rectifie them : and of the more speciall method of teaching the True Art of Reasoning in all the degrees and Parts of the Practice and Theoric thereof, I hope I shall at another time be able to speak more fully, when God shall give me better leisure without distraction to elaborate such tasks as in this and other Kinds lie upon my hand. In the mean while, take this as a taste of what may follow in due time ; both for the Illustration of this way

way by examples, and for the more particular deduction of every thing belonging hereunto. I rest upon all occasions of service in this or any other kind,

*Your affectionate and Loving*

*Friend and Servant in Christ*

JOHN DURY.

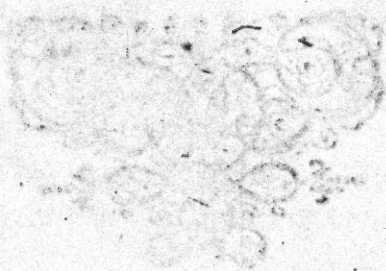


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M<sup>r</sup> JOHN DURY'S  
Letter to  
SAMUEL HARTLIB.

Dear Friend,

**I** Am glad that the Directory for the Education of Children, and teaching of Sciences is to your liking; I would be more glad if God would open a way for us to put in practice: and although nothing should be done therein by our selves in these distracted times; yet it may be a satisfaction to our minds, that we have not been wanting to our generation, so farre as God hath enabled us to trace the wayes of doing service to the publick; and that we have not buried our talents in the ground, when opportunities have been offered

offered to ~~not~~ employ them. You have  
told me once or twice at severall oc-  
casions, that the Discourses which  
Dr Kinney hath sent you from beyond  
Seas tend wholly to the same Scope  
which I have proposed to my self in the  
Directory which I have sent you; and  
that my Conceptions are as it were an  
Abridgement of that which he has  
written to you; as if I had read his  
contrivement of matters; and taken  
the cream of his whole counsell. It  
is very possible that men of the same  
Judgement and Principles, setting  
themselves to order one and the same  
work, though they never have confer-  
red notions, may agree upon one and  
the same way: I am glad that your  
thoughts and his, though neither of  
us have had the perusall of one ano-  
thers papers, or any communication  
with each other about that subject, do  
so concur, as to confirm you in the  
way which is most satisfactory to your  
judgement



judgement: you may say then to the world; that you have two witnesses to me and the same Truth, and way of Righteousnes; and that Gods Spirit, and Right Reason speaks the same thing in all men; in all the parts of the world.

I shall be glad at a convenient time, to see those papers, whereof you say I have already given you the substance before I ever saw them: for I suppose they will not onely adde to my thoughts upon that Subject; but perhaps give me occasion to adde something to him for the accomplishment of your desires, and the benefit of the Publick, whereunto you know I have dedicated my self; and herein by Gods grace shall persevere unto the end: I rest,

Your most affectionate and  
faithfull Servant in Christ,

JOHN DURY.

FINIS.